

**UNITED STATES DISTRICT COURT
DISTRICT OF NORTH DAKOTA
SOUTHWESTERN DIVISION**

Richard Brakebill, Deloris Baker, Dorothy
Herman, Della Merrick, Elvis Norquay, Ray
Norquay, and Lucille Vivier, on behalf of
themselves,

Plaintiffs,

vs.

Alvin Jaeger, in his official capacity as the
North Dakota Secretary of State,

Defendant.

Civil No. 1:16-cv-8

Declaration of Michael C. Herron, Ph.D.


I, Michael C. Herron, declare as follows:

1. I am the William Clinton Story Remsen 1943 Professor of Government at Dartmouth College and have taught in the Department of Government at Dartmouth since 2003. I am also the chair of Dartmouth's Program in Quantitative Social Science and have held this position for about two years. I have personal knowledge of the facts set forth in this declaration and could and would competently testify to these facts if asked to do so.

2. Attached as Exhibit A is a true and correct copy of a document titled "Evidence of Racially Polarized Voting in North Dakota, 2008 and 2010." I prepared this report for the plaintiffs in this action. I declare under penalty of perjury that the report is true and correct to the best of my knowledge.

Executed on June 18, 2016 at Hanover, NH

I declare under penalty of perjury that the foregoing is true and correct.

A handwritten signature in black ink, appearing to read "Michael C. Herron", written over a horizontal line.

Michael C. Herron

CERTIFICATE OF SERVICE

I hereby certify that on June 20, 2016, the document titled “**Declaration of Michael C. Herron, Ph.D.**” was electronically filed with the Clerk of Court through ECF, and that ECF will send a Notice of Electronic Filing (“NEF”) to:

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EXHIBIT A

Evidence of Racially Polarized Voting in North Dakota, 2008 and 2010

1 Introduction

2 In the matter of *Brakebill et al. v. Jaeger*, I was asked by plaintiff counsel
3 Matthew Campbell of the *Native American Rights Fund* to study the 2008
4 and 2010 statewide elections in North Dakota and offer an opinion as to
5 whether there is evidence that Native American voters in North Dakota have
6 different voting behaviors than white voters in the state. In response to this
7 request, I assembled a dataset based on publicly-available, historical election
8 returns and demographic data provided to me by the Cartographic Research
9 Laboratory at the University of Alabama. I analyzed my dataset using stan-
10 dard statistical techniques, and this declaration describes the process that I
11 followed in my research as well as my findings.

12 I am William Clinton Story Remsen 1943 Professor of Government at
13 Dartmouth College and have taught in the Department of Government at
14 Dartmouth since 2003. I am also the chair of the Program in Quantitative
15 Social Science at Dartmouth College and have had this position for approxi-
16 mately two years. I previously was on the faculty of Northwestern University,
17 and I have visited at Harvard University, the University of Rochester, and
18 the Hertie School of Governance in Berlin. In January, 1998, I received
19 a doctorate in the field of Political Economy from the Graduate School of
20 Business at Stanford University. I also have a master's degree in statistics

1 from Stanford University (June, 1995), a master's degree in political science
2 from the University of Dayton (August, 1992), and a bachelor's degree in
3 mathematics and economics from Carnegie-Mellon University (May, 1989).

4 I have published in many political science journals including the field's
5 top general journals: *American Political Science Review*, *American Journal*
6 *of Political Science*, and *Journal of Politics*. I have published as well in
7 speciality journals like *Election Law Journal*, *American Politics Research*,
8 and *Legislative Studies Quarterly* and have consulted in a variety of legal
9 cases. My *curriculum vitae*, which lists published papers and professional
10 affiliations, is attached to this report as Appendix B.

11 The techniques used in this report are typical of, and in some cases identi-
12 cal to, techniques that other scholars and I have used to study racial patterns
13 of voting in American elections. In addition, the software and hardware that
14 I used in the course of preparing this report are standard, and to the best of
15 my knowledge other scholars who work on the types of data described here
16 regularly rely on software and hardware similar or identical to the software
17 and hardware, respectively, used in the work described in this report. I am
18 being paid at a rate of \$300/hour for the work described in this declaration.

19 Broadly, this declaration describes how I gathered North Dakota elec-
20 tion returns data, combined these data with demographic data on North
21 Dakota precincts and counties, and then used linear regression analysis to
22 draw conclusions about racially polarized voting in North Dakota in the gen-
23 eral elections of 2008 and 2010. In my opinion, the evidence that I have

1 found is consistent with the existence of racially polarized voting in North
2 Dakota. In particular, my evidence implies that Native Americans in North
3 Dakota vote for Democratic candidates at greater rates than do whites in
4 the state.

5 **2 Racially polarized voting in North Dakota**

6 The specific question that I explore in this declaration is as follows: in the
7 2008 and 2010 statewide, general elections in North Dakota, is there evidence
8 that Native Americans in the state voted differently than whites? Election
9 scholars will sometimes use the term *racially polarized voting* to refer to a
10 situation in which racial groups vote on average differently from one another,
11 and in this declaration the racial groups of interest are Native Americans and
12 whites. According to the 2010 Census, there were 672,591 residents of North
13 Dakota of whom 605,449 (approximately 90%) were white and of one race
14 and 36,591 (approximately 5.4%) who were American Indian/Alaska Native
15 and of one race. For brevity, henceforth I use the term “Native American” to
16 refer to what the census calls “American Indian and Alaska Native.”¹ North
17 Dakota is predominantly white, and Native Americans constitute the second

18 ¹Based on 2010-2014 American Community Survey 5-Year Estimates, the population of
19 North Dakota in 2014 was 704,925. Of these individuals, 628,770 (approximately 89.2%)
20 where white and of one race and 36,989 (approximately 5.2% were Native American and
21 of one race. Thus, the demographics of North Dakota did not change appreciably between
22 2010 and 2014.

1 largest racial group in the state.

2 The matter of whether there was racially polarized voting in North Dakota
3 in 2008 and 2010 is complicated by ballot secrecy. Individuals' vote choices
4 are not in general observable by others, and consequently research on the
5 possible extent of racially polarized in voting in the state must turn to ev-
6 idence that does not require knowledge of how individuals chose to vote in
7 a set of elections. This statement is general and does not apply to North
8 Dakota-based research in particular.

9 Although individual vote choices are not in general observable, aggregated
10 elections returns are observable. In the case of North Dakota, the Secretary of
11 State (NDSOS) maintains historical election returns on a publicly accessible
12 website.² This website has a section that contains returns from the North
13 Dakota elections of 2010, 2012, 2014, and 2016.³ The NDSOS website also
14 has a section on older election results, and this section contains election
15 returns that date to 2000.⁴

16 ²The website is located at <http://sos.nd.gov> (last accessed June 6, 2016).

17 ³This section contains returns for both general and primary elections, and it
18 can be reached at [https://vip.sos.nd.gov/PortalListDetails.aspx?ptlhPKID=62\](https://vip.sos.nd.gov/PortalListDetails.aspx?ptlhPKID=62&ptlPKID=4)
19 [&ptlPKID=4](https://vip.sos.nd.gov/PortalListDetails.aspx?ptlhPKID=62&ptlPKID=4) (last accessed June 6, 2016).

20 ⁴This section can be reached at [https://vip.sos.nd.gov/PortalListDetails.aspx?](https://vip.sos.nd.gov/PortalListDetails.aspx?ptlhPKID=67&ptlPKID=4)
21 [ptlhPKID=67&ptlPKID=4](https://vip.sos.nd.gov/PortalListDetails.aspx?ptlhPKID=67&ptlPKID=4) (last accessed June 6, 2016).

1 **3 Data preparation**

2 The data that I bring to bear on the matter of racially polarized voting in
3 North Dakota is drawn from several sources. I describe these sources in this
4 section of the declaration.

5 **3.1 Election returns**

6 I wrote a series of perl scripts that accessed the NDSOS website and from
7 it downloaded returns for the North Dakota general elections of 2008 and
8 2010.⁵ Regarding the election of 2008, my scripts gathered election returns
9 from that year's Presidential contest; for 2010, my scripts gathered returns
10 from the United States (U.S.) Senate, North Dakota Secretary of State, North
11 Dakota Attorney General, North Dakota Agriculture Commissioner, North
12 Dakota Public Service Commissioner, and the North Dakota Tax Commis-
13 sioner contests. Each of these 2008 and 2010 contests featured a Republican
14 and a Democratic candidate, sometimes among others, and the NDSOS web-
15 site lists by county and precinct the number of votes each Republican and
16 Democratic candidate in each contest received. I consider in this report only
17 statewide elections in 2008 and 2010, and this is because my analysis needs to
18 be able to generate conclusions that applied to North Dakota in its entirety.⁶

19 ⁵I did not gather any primary election returns.

20 ⁶Beyond the list of 2010 contests that appear here, there was an additional statewide
21 contest in 2010. This contest was for a seat on the North Dakota Supreme Court, and
22 the Supreme Court contest was non-partisan. One candidate, Carol Kapsner, ran for

1 With my perl scripts, I constructed various precinct-level tables of North
2 Dakota election returns. These tables consist of machine-readable, text files
3 that I incorporated into a database built with the open source database,
4 mysql. Mysql is a common database, and I use this database in many of my
5 academic research projects.

6 **3.2 Precinct demographics**

7 Given my objective of determining whether there was racially polarized vot-
8 ing in North Dakota in the elections 2008 and 2010, my research requires de-
9 mographic data that specifies the racial breakdown of North Dakota precincts
10 in those years. For such demographic data I turned to the aforementioned
11 Cartographic Research Laboratory (Cartlab) at the University of Alabama.
12 With permission of counsel, I communicated with W. Craig Remington, the
13 director of Cartlab and Adjunct Professor of Geography, and requested that
14 Mr. Remington procure electronic maps of North Dakota precinct bound-
15 aries and then use these maps to generate precinct-level racial demographics
16 based on data from the 2010 Census. In particular, I requested that Mr.
17 Remington inform me of the number of voting age residents in each North
18 Dakota precinct as well as the number of residents who self-reported as being
19 Justice on the Court, and no political party was listed next to her name. According to
20 the NSDOS website, Ms. Kapsner received 99.35% of all votes cast in her contest. Given
21 its non-partisan and lopsided nature, I do not analyze the North Dakota Supreme Court
22 contest in this report.

1 white and the number who self-reported as being Native American.⁷

2 I asked Mr. Remington to calculate racial demographics based on data
3 from the 2010 Census, and this is because 2010 is the year of the most recent
4 decennial census. North Dakota submitted to the United States Census Bu-
5 reau maps of its precincts for inclusion in the 2010 Census, and these maps
6 are in principle synchronized with data from the 2010 Census.⁸ It was evi-
7 dent from the NDSOS website that the number of precincts in North Dakota
8 changed between 2010 and 2012; in particular, the NDSOS reports that the
9 state used 505 precincts in the former and 426 in the latter. This means that
10 Census precinct maps submitted by North Dakota officials in support of the
11 2010 Census would not necessarily be useful for election beyond 2010.

12 Mr. Remington sent me a variety of files, and among these was a dbf file
13 that contained the precinct demographics that I had requested. I converted
14 the dbf file to text in the R statistical environment, a standard environment
15 for data manipulation and statistical calculations.

16 There are several North Dakota counties for which the number of Census
17 precincts tabulated by Mr. Remington did not match the number of precincts
18 for which the NDSOS reported election returns in 2010. In addition, there

19 ⁷Mr. Remington provided me with other precinct-level demographic information as
20 well, e.g., the number of voting age African-American residents of each North Dakota
21 precinct, but my research focused solely on the Native American and white populations
22 of North Dakota precincts.

23 ⁸The Census refers to precincts as VTDs, or voting districts. For the purposes of this
24 report, these two terms can be used synonymously.

1 were some incompatibilities between the names of precincts in 2010 Census
2 data and names of precincts in NDSOS data. Mr. Remington and I communi-
3 cated about these issues, among others, and I requested that Mr. Remington
4 directly contact some North Dakota counties so as to produce racial demo-
5 graphics for as many 2010 precincts, as specified by the NSDOS, as possible.
6 In some cases Mr. Remington was able to resolve inconsistencies between
7 precinct counts in Census data and precinct counts in NSDOS election re-
8 turns, and a similar statement applies to inconsistencies in precinct names.
9 The results that follows do not use counties those few North Dakota counties
10 for which it was not possible to link cleanly Census precincts with NDSOS
11 precincts.

12 The precinct name and number issues that Mr. Remington encountered
13 while calculating racial demographics for North Dakota precincts are, in my
14 experience, typical issues that occur when merging Census data with election
15 returns compiled by a state office, in this case the NSDOS. None of the issues
16 that Mr. Remington faced surprised me, and I have faced similar quandaries
17 related to precinct boundaries in my academic research.

18 In the course of my normal academic research, I typically outsource the
19 types of calculations that Mr. Remington executed on my behalf. In partic-
20 ular, when my research requires overlaying electronic maps and from such
21 overlays aggregating populations so as to calculate racial demographics of
22 voting units like precincts, I generally turn to the services of a geographer or
23 to someone with skills in geographic analyses.

Table 1: North Dakota precincts by county

County	NSDOS precincts	Merged precincts	County	NSDOS precincts	Merged precincts
Adams	1	1	McLean	11	11
Barnes	15	15	Mercer	14	0
Benson	8	8	Morton	18	18
Billings	3	3	Mountrail	9	9
Bottineau	11	0	Nelson	1	1
Bowman	4	4	Oliver	7	7
Burke	6	6	Pembina	6	6
Burleigh	35	35	Pierce	8	8
Cass	35	35	Ramsey	4	4
Cavalier	1	1	Ransom	6	6
Dickey	3	3	Renville	5	5
Divide	4	4	Richland	18	0
Dunn	11	11	Rolette	5	5
Eddy	5	5	Sargent	5	5
Emmons	5	5	Sheridan	2	2
Foster	6	6	Sioux	7	6
Golden Valley	1	1	Slope	3	3
Grand Forks	43	43	Stark	13	13
Grant	4	4	Steele	5	5
Griggs	7	7	Stutsman	12	6
Hettinger	3	3	Towner	3	3
Kidder	6	6	Traill	13	13
LaMoure	9	9	Walsh	18	18
Logan	5	5	Ward	32	0
McHenry	8	8	Wells	6	4
McIntosh	6	6	Williams	15	15
McKenzie	14	11			

1 Table 1 reports by North Dakota county (there are 53 counties in the
 2 state) the number of precincts for which election data in 2010 was published
 3 by the NDSOS and the corresponding number of precincts for which I have

1 demographic data. The latter can be called “merged” precincts because this
2 set of precincts reflect a merging of NDSOS and Cartlab-generate demo-
3 graphic data. There are 505 NDSOS precincts and 418 merged precincts,
4 and this yields a precinct coverage rate of approximately 83%. Relatedly, as
5 of the 2010 Census, there were 522,720 voting age residents in North Dakota,
6 and among the 418 merged precincts there were 437,707 voting age residents.
7 This translates to a voting age coverage rate of approximately 84%. Among
8 voting age Native Americans in North Dakota, the coverage rate among the
9 418 merged precincts is approximately 92%.

10 4 Results

11 I now turn to results. The analyses that follow incorporate Democratic vote
12 share across a variety of North Dakota statewide elections in 2010 and 2008,
13 and to this end Table 2 lists key Democratic and Republican candidates from
14 2010 and 2008 along with their overall vote percentages. When this report
15 refers to, for example, the Democratic vote share in the 2010 United States
16 Senate contest, this means the vote share received by Tracy Potter, who as
17 noted in the table was the Democratic candidate in this contest.

18 Table 2 shows that Republican candidates won all of the statewide con-
19 tests considered here. Democratic vote share in these contests varied from
20 approximately 22% (U.S. Senate) to almost 45% (Presidential contest).

21 There are 53 counties in North Dakota, and for the 2010 U.S. Senate

Table 2: Democratic and Republican candidates and vote percentages in selected 2008 and 2010 contests across North Dakota

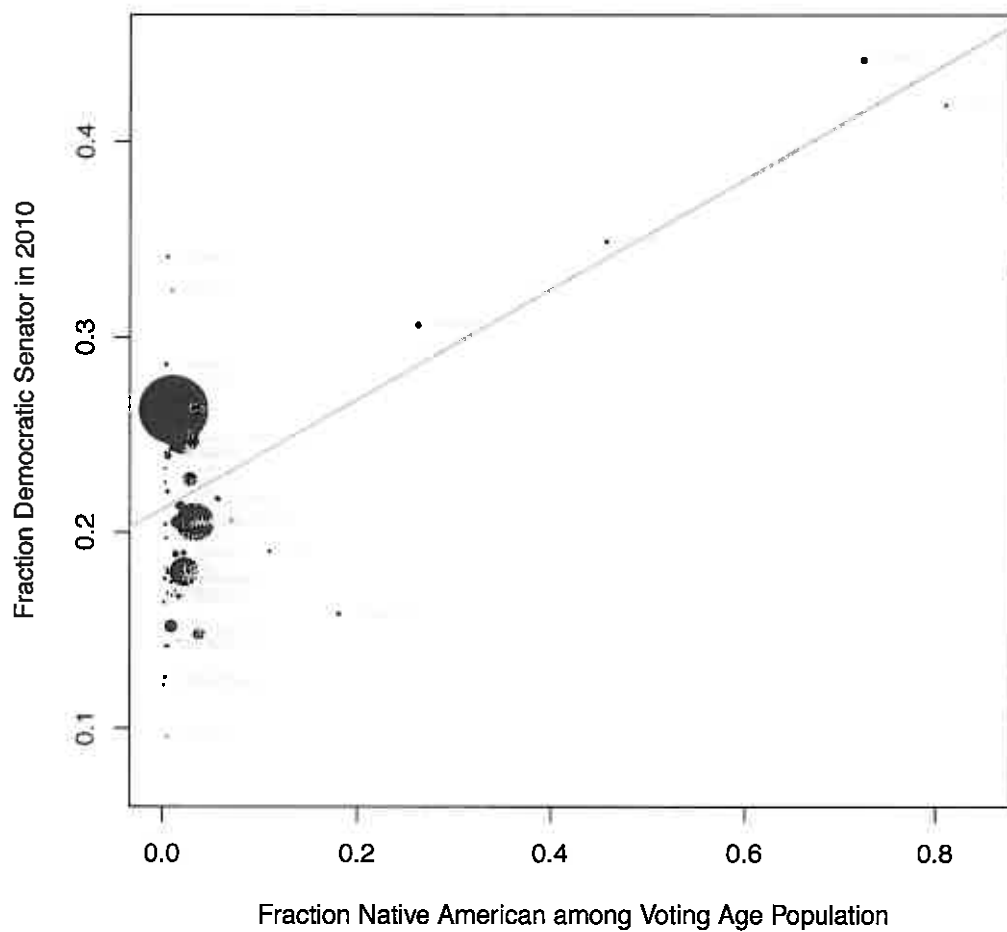
Contest	Democrat	Republican
President	Barack Obama (44.62%)	John McCain (53.25%)
U.S. Senate	Tracy Potter (22.17%)	John Hoeven (76.08%)
Secretary of State	Corey Mock (37.46%)	Alvin A. Jaeger (62.44%)
Attorney General	Jeanette Boechler (25.38%)	Wayne Stenehjem (74.55%)
Agriculture Commissions	Merle Boucher (31.93%)	Doug Goehring (67.98%)
Public Services Commissioner	Brad Crabtree (34.90%)	Kevin Cramer (61.45%)
Tax Commissioner	Cynthia Kaldor (29.22%)	Cory Fong (67.39%)

Note: all contests are from 2010 except for the Presidential contest, which took place in 2008. Vote percentages do not sum to 100 due to rounding and the presence of third party and/or write-in candidates.

1 contest Figure 1 describes the Democratic vote share in each of these counties
2 along with the fraction in each county that is Native American. Each dot in
3 the figure denotes one county, and the size of each dot is proportional to the
4 total number of voting age residents in the county.

5 I earlier noted that, as of the 2010 Census, Native Americans constitute
6 approximately 5.4% of the North Dakota population. Figure 1 shows that
7 the Native American population in the state is clustered in several counties,
8 of which Benson, Mountrail, Rolette, and Sioux are the four most heavily
9 Native American based on voting age population. With respect to voting
10 age population, these four counties are disproportionately Native American
11 compared to the rest of North Dakota (each is more than 20% Native Ameri-
12 can, for example), and the counties are all relatively small. This is evident in
13 Figure 1 insofar as the dots corresponding to the four aforementioned coun-

Figure 1: Fraction Native American and 2010 Senate vote among North Dakota counties



Note: each dot represents one North Dakota county, and dot size is proportional to total voting age population.

1 ties are much smaller than the dots for larger (and heavily white) counties
2 in North Dakota.

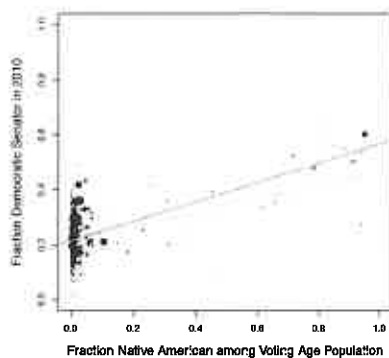
3 Figure 1 is suggestive that Native American voters in North Dakota dis-
4 proportionately preferred the Democratic candidate in the U.S. Senate con-
5 test. However, the units in the figure are counties, of which there are only
6 53, and some are large. In a statistical analysis of voting, smaller units of
7 analysis are generally preferable, *ceteris paribus*, and hence I now consider
8 voting precincts which are in general nested within counties. Precincts are
9 the smallest units in North Dakota for which election returns are available.⁹

10 Figure 2 contains six panels, each of which describes precinct-level election
11 returns in a given 2010 election contest. In what follows I focus on the U.S.
12 Senate panel, which is Figure 2a, but the other five panels are all similar and
13 lead to qualitatively similar conclusions.

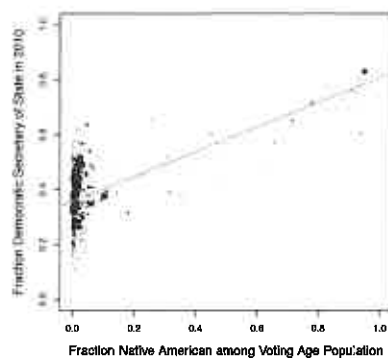
14 Each dot in Figure 2a represents a North Dakota precinct, and the size
15 of each dot is proportional to the total voting age population of a precinct.
16 As in the earlier county-level plot, the horizontal axis in Figure 2a describes
17 a precinct's fraction Native American among its voting age population, and
18 the vertical axis in Figure 2a is the precinct's Democratic vote share in the
19 2010 U.S. Senate contest.

20 ⁹The smallest geographies tabulated by the Census Bureau are called blocks. Election
21 returns are not tabulated by block in North Dakota, and this is typical across the United
22 States. Instead, the NDSOS tabulates results statewide, by county, and by precinct, and
23 precincts are thus the smallest units for which voting data are available.

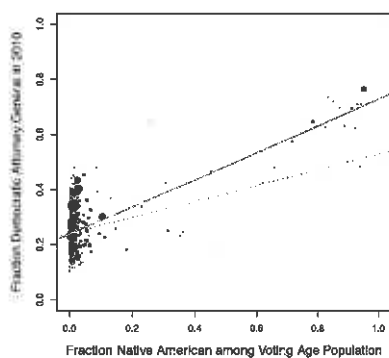
Figure 2: Fraction Native American and six 2010 elections among North Dakota precincts



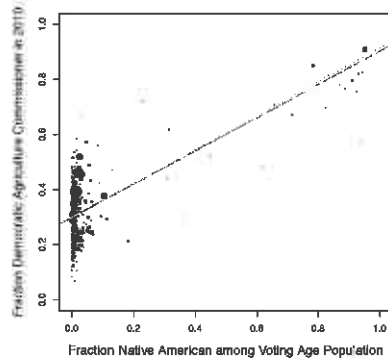
(a) U.S. Senate



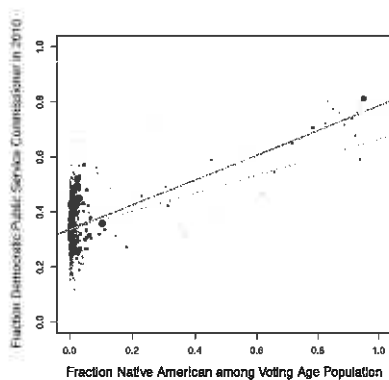
(b) Secretary of State



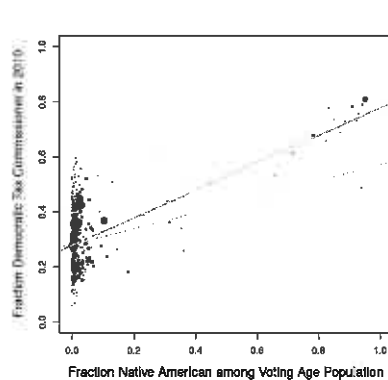
(c) Attorney General



(d) Agriculture Commissioner



(e) Public Services Commissioner



(f) Tax Commissioner

Two grey lines appear in Figure 2. The solid grey line is the fitted line from a weighted regression of fraction Democratic candidate support on fraction Native American in the precinct; this line uses all precincts. The dotted grey line also represents a regression, but one that uses precincts that are at most 50% Native American based on voting age population.¹⁰ The dotted grey line is important because one might be concerned that a regression using all precincts is unduly influenced by a small number of heavily Native American precincts. I will return to this point shortly.

The key result in Figure 2a is that the pictured grey line has a positive slope that is significantly different than zero at conventional confidence levels.¹¹ See Table 3 in Appendix A for details. In other words, the more Native American a precinct (based on voting age population), the greater the Democratic vote share in the 2010 U.S. Senate contest. This result is consistent with racially polarized voting.

For example, the grey regression line in Figure 2a implies that a North Dakota precinct that was entirely non-Native American would be expected to have had a Democratic vote share in the U.S. Senate contest of approximately 0.214. In contrast, a precinct that was entirely Native American would be

¹⁰Both regression lines depicted in Figure 2a are weighted based on total number of votes cast in the 2010 U.S. Senate contest. This is appropriate because the dependent variable in the regressions is a ratio of total number of Democratic votes cast to total number of votes cast.

¹¹Throughout this report I use the conventional standard of $p = 0.05$ to assess statistical significance.

1 expected to have had a Democratic vote share in this race of approximately
2 0.567.¹²

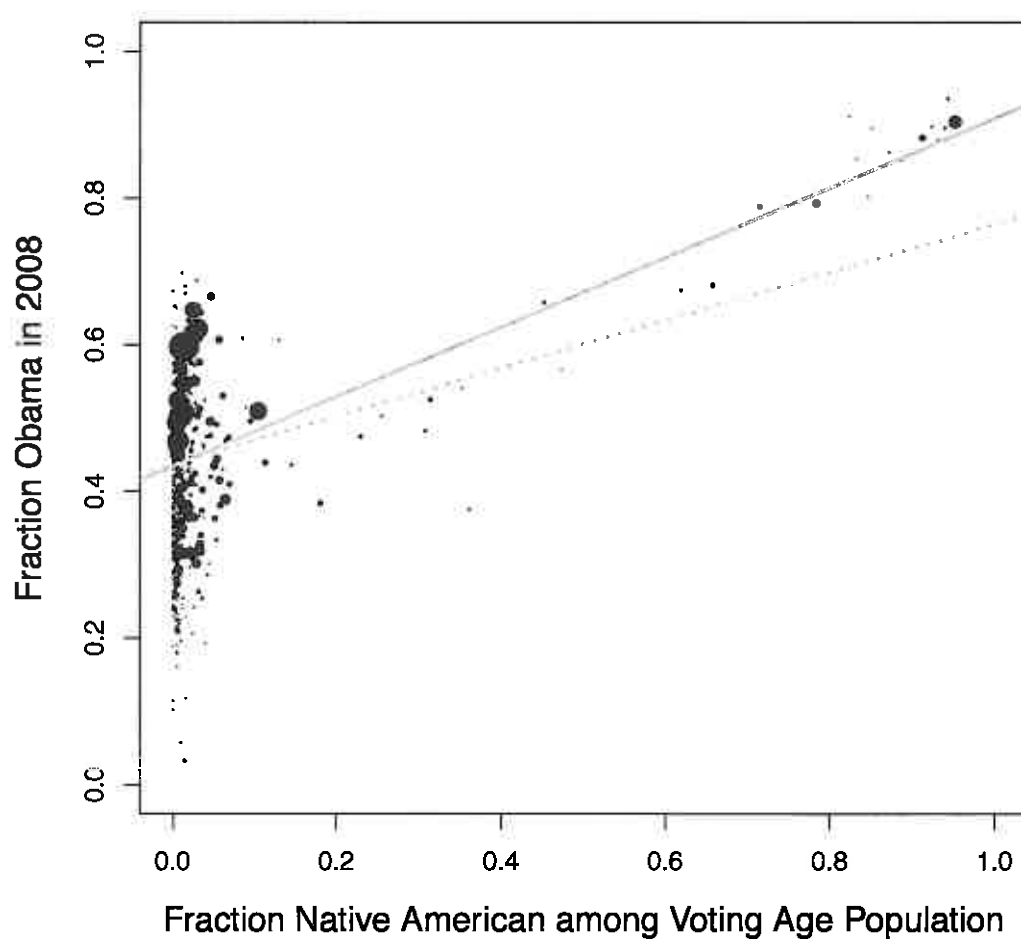
3 Moreover, the general pattern of greater expected Democratic vote share
4 in precincts with greater Native American fraction holds if one restricts atten-
5 tion to precincts that are no more than 50 percent Native American; see the
6 dotted grey line in Figure 2a. The latter line is sloped less steeply than the
7 solid grey line, and this is intuitive: when the most heavily North Dakota
8 precincts are disregarded, the estimated relationship between a precinct's
9 Native American fraction and its Democratic vote share in the U.S. Senate
10 contest is diminished. Nonetheless, the dotted grey line in Figure 2a slopes
11 upward, and this result is statistically significant at conventional confidence
12 levels.

13 The above comments apply to Figure 2a and the U.S. Senate contest.
14 They apply as well to Figures 2b – 2f and their respective contests from
15 2010. Corresponding regression estimates can be found in Tables 3 and 4 in
16 Appendix A.

17 To ensure that my conclusions about precinct racial composition and
18 Democratic vote share that draw on six 2010 statewide elections in North
19 Dakota are not idiosyncratic to that year, I estimated a weighted linear re-
20 gression model in which the dependent variable was Democratic vote share
21 in the 2008 presidential election. Barack Obama was the Democratic candi-

22 ¹²These two numbers are the estimated constant from the U.S. Senate regression and
23 the estimated constant plus the estimated slope, which is 0.353.

Figure 3: Fraction Native American and 2008 Presidential vote among North Dakota precincts



1 date for president in 2008, and results are in Table 5 in Appendix A. These
2 results are summarized in Figure 3.¹³

3 The implication of Figure 3 parallels the implications of the aforemen-
4 tioned 2010 figures. Namely, the greater a precinct's share of Native Ameri-
5 can voters, the greater the 2008 Democratic vote share in the precinct. For
6 example, a North Dakota precinct that was entirely non-Native American
7 would be expected to have had a Democratic vote share of approximately
8 0.474; in contrast, a precinct that was entirely Native American would have
9 been expected to have had a Democratic vote share that was approximately
10 0.909. This result is consistent with racially polarized voting in the 2008
11 Presidential election, and the particular value of Figure 3 (and its associated
12 regression) is that it shows that my earlier findings on 2010 elections extend
13 to 2008.

14 5 Conclusion

15 In this report I considered the matter of whether Native Americans in North
16 Dakota voted differently than whites did in statewide elections in 2008 and
17 2010. Using standard statistical techniques, publicly available election re-
18 turns, and data from the 2010 Census, I conclude that Native Americans in
19 North Dakota cast votes for Democratic candidates at a greater rate than

20 ¹³The number of observations in the 2008 regression differs slightly from the number of
21 observations in the six 2010 regressions discussed previous due to precinct merging issues.

18 did white voters in the state. This exemplifies racially polarized voting.

1 A Regression output

2 This section contains regression estimates for some of the models discussed
 3 in this report. All estimates were generated using the R statistical comput-
 4 ing environment, Version 3.2.1. The independent variable in the regressions
 5 summarized here is the fraction of a precinct that is Native American, based
 6 on voting age population.

Table 3: Regression results for 2010 U.S. Senate, Secretary of State, and Attorney General Elections

	Democratic vote share		
	U.S. Senate	Secretary of State	Attorney General
	(1)	(2)	(3)
Frac. Native American	0.353*** (0.025)	0.449*** (0.028)	0.489*** (0.026)
Constant	0.214*** (0.003)	0.358*** (0.004)	0.239*** (0.004)
Observations	418	418	418
R ²	0.330	0.374	0.460

Note: *p<0.1; **p<0.05; ***p<0.01

Table 4: Regression results for 2010 Agriculture Commissioner, Public Services Commissioner, and Tax Commissioner Elections

	Democratic vote share		
	Agriculture	Public Services	Tax
	(1)	(2)	(3)
Frac. Native American	0.603*** (0.034)	0.450*** (0.029)	0.498*** (0.034)
Constant	0.299*** (0.005)	0.336*** (0.004)	0.278*** (0.005)
Observations	418	418	418
R ²	0.434	0.358	0.342
<i>Note:</i> *p<0.1; **p<0.05; ***p<0.01			

Table 5: Regression results for 2008 Presidential Election

	Democratic vote share
	President
Frac. Native American	0.474*** (0.036)
Constant	0.435*** (0.005)
Observations	446
R ²	0.281
<i>Note:</i>	*p<0.1; **p<0.05; ***p<0.01

1 **B Michael C. Herron *curriculum vitae***

2 **Michael C. Herron**

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Academic appointments

William Clinton Story Remsen 1943 Professor, Department of Government, Dartmouth College. July, 2013–present.

Chair, Program in Quantitative Social Science, Dartmouth College. July, 2015–present.

Chair, Program in Mathematics and Social Sciences, Dartmouth College. July, 2014–June, 2015.

Professor, Department of Government, Dartmouth College. July, 2009–June, 2013.

Visiting Professor of Applied Methods, Hertie School of Governance, Berlin, Germany. August, 2011–August, 2012.

Associate Professor, Department of Government, Dartmouth College. July, 2004–June, 2009.

Visiting Associate Professor, Department of Government, Harvard University. July, 2008–January, 2009.

Visiting Associate Professor, Wallis Institute of Political Economy, University of Rochester. September, 2006–December, 2006.

Visiting Assistant Professor, Department of Government, Dartmouth College. July, 2003–June, 2004.

Assistant Professor, Department of Political Science, Northwestern University. September, 1997–June, 2004.

Faculty Associate, Institute for Policy Research, Northwestern University. September, 2002–June, 2004.

Education

PhD Business (Political Economics), Stanford University, January, 1998.

Dissertation: Political Uncertainty and the Prices of Financial Assets

Committee: David Baron, Darrell Duffie, Douglas Rivers, and Barry Weingast

MS Statistics, Stanford University, June, 1995.

MA Political Science, University of Dayton, August, 1992.

BS Mathematics and Economics, with University Honors, Carnegie Mellon University, May, 1989.

Fellowships

Elizabeth R. and Robert A. Jeffe 1972 Fellowship, Dartmouth College. September, 2010–June, 2011.

Fulbright Scholar Program fellowship for research and teaching at the Heidelberg Center for American Studies, Heidelberg University, September, 2009 - February, 2010 (declined).

Post-doctoral Research Fellow, Center for Basic Research in the Social Sciences, Harvard University. September, 2000 - August, 2001.

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Publications

Journal articles

"Precinct Resources and Voter Wait Times" (with Daniel A. Smith). Forthcoming, *Electoral Studies*.

"Race, Shelby County, and the Voter Information Verification Act in North Carolina" (with Daniel A. Smith). Forthcoming, *Florida State University Law Review*.

"A Careful Look at Modern Case Selection Methods" (with Kevin M. Quinn). Forthcoming, *Sociological Methods & Research* (<http://smr.sagepub.com/cgi/reprint/0049124114547053v1.pdf?ikey=ZP71LzaMolrruxb&keytype=ref>).

"Precinct Closing and Wait Times in Florida during the 2012 General Election" (with Daniel A. Smith). *Election Law Journal* 14(3): 220-238. 2015.

"Race, Party, and the Consequences of Restricting Early Voting in Florida in the 2012 General Election" (with Daniel A. Smith). *Political Research Quarterly* 67(3): 646-665. 2014.

"The Effects of House Bill 1355 on Voter Registration in Florida" (with Daniel A. Smith). *State Politics & Policy Quarterly* 13(3): 279-305. 2013.

"Blacks, Hispanics, and Whites: A Study of Race-based Residual Vote Rates in Chicago." *American Politics Research* 41(2): 203-243. 2013.

"Alvin Greene? Who? How did he win the United States Senate nomination in South Carolina?" (with Joseph Bafumi, Seth J. Hill, and Jeffrey B. Lewis). *Election Law Journal* 11(4): 358-379. 2012.

"Souls to the Polls: Early Voting in Florida in the Shadow of House Bill 1355" (with Daniel A. Smith). *Election Law Journal* 11(3): 331-347. 2012.

"Leapfrog Representation and Extremism: A Study of American Voters and their Members in Congress" (with Joseph Bafumi). *American Political Science Review* 104(3): 519-542. 2010.

"Economic Crisis, Iraq, and Race: A Study of the 2008 Presidential Election" (with Seth J. Hill and Jeffrey B. Lewis). *Election Law Journal* 9(1): 41-62. 2010.

"Prejudice, Black Threat, and the Racist Voter in the 2008 Presidential Election" (with Joseph Bafumi). *Journal of Political Marketing* 8(4): 334-348. 2009.

"Voting Technology and the 2008 New Hampshire Primary" (with Walter R. Mebane, Jr., and Jonathan N. Wand). *William & Mary Bill of Rights Journal* 17(2): 351-374. 2008.

"Ballot Formats, Touchscreens, and Undervotes: A Study of the 2006 Midterm Elections in Florida" (with Laurin Frisina, James Honaker, and Jeffrey B. Lewis). *Election Law Journal* 7(1): 25-47. 2008.

"Gerrymanders and Theories of Lawmaking: A Study of Legislative Redistricting in Illinois" (with Alan E. Wiseman). *Journal of Politics* 70(1): 151-167. 2008.

"Estimating the Effect of Redistricting on Minority Substantive Representation" (with David Epstein, Sharyn O'Halloran, and David Park). *Journal of Law, Economics, and Organization* 23(2): 499-518. 2007.

"Did Ralph Nader Spoil Al Gore's Presidential Bid? A Ballot-Level Study of Green and Reform Party Voters in the 2000 Presidential Election" (with Jeffrey B. Lewis). *Quarterly Journal of Political Science* 2(3): 205-226. 2007.

"Assessing Partisan Bias in Voting Technology: The Case of the 2004 New Hampshire Recount" (with Jonathan N. Wand). *Electoral Studies* 26(2): 247-261. 2007.

- "Term Limits and Pork" (with Kenneth W. Shotts). *Legislative Studies Quarterly* 31(3): 383-404. 2006.
- "Black Candidates and Black Voters: Assessing the Impact of Candidate Race on Uncounted Vote Rates" (with Jasjeet S. Sekhon). *Journal of Politics* 67(1): 154-177. 2005.
- "Government Redistribution in the Shadow of Legislative Elections: A Study of the Illinois Member Initiatives Grant Program" (with Brett A. Theodos). *Legislative Studies Quarterly* 24(2): 287-312. 2004.
- "Studying Dynamics in Legislator Ideal Points: Scale Matters." *Political Analysis* 12(2): 182-190. 2004.
- "Logical Inconsistency in EI-based Second Stage Regressions" (with Kenneth W. Shotts). *American Journal of Political Science* 48(1): 172-183. 2004.
- "Overvoting and Representation: An examination of overvoted presidential ballots in Broward and Miami-Dade counties Counties" (with Jasjeet S. Sekhon). *Electoral Studies* 22: 21-47. 2003.
- "Using Ecological Inference Point Estimates as Dependent Variables in Second Stage Linear Regressions" (with Kenneth W. Shotts). *Political Analysis* 11(1): 44-64. 2003.
- "Cross-contamination in EI-R" (with Kenneth W. Shotts). *Political Analysis* 11(1): 77-85. 2003.
- "A Consensus on Second Stage Analyses in Ecological Inference Models" (with Christopher Adolph, Gary King, and Kenneth W. Shotts). *Political Analysis* 11(1): 86-94. 2003.
- "The Butterfly Did It: The Aberrant Vote for Buchanan in Palm Beach County, Florida" (with Jonathan N. Wand, Kenneth W. Shotts, Jasjeet S. Sekhon, Walter R. Mebane, Jr., and Henry E. Brady). *American Political Science Review* 95(4): 793-810. 2001.
- "Interest Group Ratings and Regression Inconsistency." *Political Analysis* 9(3): 260-274. 2001.
- "Leadership and Pandering: A Theory of Executive Policymaking" (with Brandice Canes-Wrone and Kenneth W. Shotts). *American Journal of Political Science* 45(3): 532-550. 2001.
- "Law and Data: The Butterfly Ballot Episode" (with Henry E. Brady, Walter R. Mebane, Jr., Jasjeet S. Sekhon, Kenneth W. Shotts, and Jonathan N. Wand). *PS: Political Science & Politics* 34(1): 59-69. 2001.
- "Cutpoint-Adjusted Interest Group Ratings." *Political Analysis* 8(4): 346-366. 2000.
- "Estimating the Economic Impact of Political Party Competition in the 1992 British Election." *American Journal of Political Science* 44(2): 326-337. 2000.
- "Artificial Extremism in Interest Group Ratings and the Preferences versus Party Debate." *Legislative Studies Quarterly* 24(4): 525-542. 1999.
- "Post-Estimation Uncertainty in Limited Dependent Variable Models." *Political Analysis* 8(1): 83-98. 1999.
- "Measurement of Political Effects in the United States Economy: A Study of the 1992 Presidential Election" (with James Lavin, Donald Cram, and Jay Silver). *Economics & Politics* 11(1): 51-81. 1999.
- "The Influence of Family Regulation, Connection, and Psychological Autonomy on Six Measures of Adolescent Functions" (with Melissa R. Herman, Sanford M. Dornbusch, and Jerald R. Herting). *Journal of Adolescent Research* 12(1): 34-67. 1997.

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Book chapters

"Wait Times and Voter Confidence: A Study of the 2014 General Election in Miami-Dade County" (with Daniel A. Smith, Wendy Serra, and Joseph Bafumi). Forthcoming in *The American Elections: Contexts and Consequences at the Midterms*, Tauna Sisco, Christopher Galdieri, and Jennifer Lucas, eds. Akron, OH: University of Akron Press.

"A Dynamic Model of Multidimensional Collective Choice" (with David P. Baron). In *Computational Models in Political Economy*, Ken Kollman, John H. Miller, and Scott E. Page, eds. Cambridge, MA: The MIT Press. 2003.

"Law and Data: The Butterfly Ballot Episode" (with Henry E. Brady, Walter R. Mebane Jr., Jasjeet Singh Sekhon, Kenneth W. Shotts, and Jonathan Ward). In *The Longest Night: Polemics and Perspectives on Election 2000*, Arthur J. Jacobson and Michel Rosenfeld, eds. Berkeley: University of California Press. 2002.

Book reviews

The Timeline of Presidential Elections: How Campaigns Do (and Do Not) Matter, Robert S. Erikson and Christopher Wlezien. *Political Science Quarterly* 128(3): 552-553. 2013.

Voting Technology: The Not-So-Simple Act of Casting a Ballot, Paul S. Herrnson, Richard G. Niemi, Michael J. Hanmer, Benjamin B. Bederson, and Frederick C. Conrad. *Review of Policy Research* 25(4): 379-380. 2008.

Other publications

"High ballot rejection rates should worry Florida voters" (with Daniel A. Smith). *Tampa Bay Times*, October 28, 2012.

"Logistic Regression." *The Encyclopedia of Political Science*, George Thomas Kurian, James E. Alt, Simone Chambers, Geoffrey Garrett, Margaret Levi, and Paula D. McClain, eds., Washington, D.C.: CQ Press. 2010.

"Using XEmacs Macros to Process ASCII Data Files." *The Political Methodologist* 13(2): 13-18. 2005.

"Ohio 2004 Election: Turnout, Residual Votes and Votes in Precincts and Wards" (with Walter R. Mebane, Jr.), in "Democracy At Risk: The 2004 Election in Ohio," report published by the Democratic National Committee. 2005.

"Poisson Regression." *The Encyclopedia of Social Science Research Methods*, Alan Bryman, Michael Lewis-Beck, and Tim Futing Liao, eds. Thousand Oaks, CA: Sage Publications, 2003.

"Pork barrel race to the bottom" (with Brett A. Theodos). *Illinois Issues* 29(2): 22-23. 2003.

"Teaching Introductory Probability Theory." *The Political Methodologist* 10(2): 2-4. 2002.

"Ballot cost Gore thousands of votes" (with Henry E. Brady and Jonathan N. Wand). *The San Diego Union-Tribune*, p. G3, November 19, 2000.

Work in progress

"Grading, Student Choice, and Post-Education Welfare" (with Zachary D. Markovich and Samuel S. Marullo).

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Awards

Best Paper Award, State Politics and Policy Section, 2013 Annual Meeting of the American Political Science Association. *Getting Your Souls to the Polls: The Racial Impact of Reducing Early In-Person Voting in Florida* (with Daniel A. Smith).

Grants

Committee for Scholarly Innovation and Advancement Awards, Dartmouth College, February, 2014. Project title: "The Dynamics of Voting Lines in Miami-Dade County." Financial support: \$32,000.

The Rockefeller Center for Public Policy and the Social Sciences, Dartmouth College, May, 2006. Project title: "Large Scale Survey of Americans in Multiple Congressional Districts." Financial support: \$8,500.

National Science Foundation, SES-041849, July, 2004. Project title: "A Ballot-Level Study of Intentional and Unintentional Abstention in Presidential Election Voting." Financial support: \$65,749.

Nelson A. Rockefeller Center for the Social Sciences, Dartmouth College, January, 2004. Project title: "Intentional Invalid Votes in Leon County, Florida." Financial support: \$1115.

American Enterprise Institute, August, 1999. Project title: "Tenure in Office and Congressional Voting" (with Kenneth W. Shotts). Financial support: \$182,500.

University Research Grants Committee, Northwestern University, February, 1999. Project Title: "Representation, Policy Uncertainty, and Divided Government." Financial support: \$4087.

Stanford University Graduate School of Business, 1997-1998 Academic Year. Dissertation Research Grant.

Recent conference presentations

"A Simulation Study of Precinct Resources and Voter Wait Times in Hanover, New Hampshire," New Research on Election Administration and Reform, 2015, Massachusetts Institute of Technology, Cambridge, MA.

"Rejected Absentee Ballots in Florida," 2015 Annual Meeting of the Midwest Political Science Association, Chicago, IL.

"Race, *Shelby County*, and the Voter Information Verification Act in North Carolina," 2014 Annual Meeting of the American Political Science Association, Washington, DC.

"A Model of Department Grading Policies and Student Choice," 2014 Annual Meeting of the Midwest Political Science Association, Chicago, IL.

"Legislative District Compactness and Court Precedent," 2013 Annual Meeting of the Midwest Political Science Association, Chicago, IL.

"High School History Textbook Coverage of the 2000 Presidential Election," 2010 Annual Meeting of the Midwest Political Science Association, Chicago, IL.

"The Uses and Limitation of Hard Case Analysis," 2008 Northeast Political Methodology Meeting, New York, NY.

"The Uses and Limitation of Hard Case Analysis," 2008 Annual Meeting of the Midwest Political Science Association, Chicago, IL.

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"Voting Technology and the 2008 New Hampshire Primary," 2008 William & Mary School of Law Conference, *How We Vote*, Williamsburg, VA.

"Representation and American Political Institutions," 2007 Annual Meeting of the Midwest Political Science Association, Chicago, IL.

Invited seminars

University of Iowa, 1999	Columbia University, 2008
Boston University, 2000	Northwestern University, 2008
Dartmouth College, 2000	Princeton University, 2008
Harvard University, 2000	Duke University, 2009
University of Minnesota, 2000	Hertie School of Governance, 2010
University of Rochester, 2000	Emory University, 2010
University of Wisconsin, Madison, 2000	University of Mannheim, 2011
Yale University, 2000	University of Heidelberg, 2011
Columbia University, 2001	University of Passau, 2012
University of California, Berkeley, 2002	University of Göttingen, 2012
University of Illinois, 2002	Freie Universität Berlin, 2012
Brown University, 2003	Laval University, 2012
Temple University, 2003	University of Montreal, 2012
University of Chicago, 2003	Middlebury College, 2013
New York University, 2004	University of Illinois, Champaign, 2013
Princeton University, 2004	University of Illinois, Chicago, 2013
University of Michigan, 2005	University of Wisconsin, Madison, 2013
George Washington University, 2006	Yale University, 2014
Emory University, 2006	University of Virginia, 2015
Harvard University, 2007	University of California, San Diego, 2015
Loyola Law School, 2007	American University, 2015
Columbia University, 2007	Massachusetts Institute of Technology, 2015
University of Chicago, 2007	Princeton University, 2015
Yale University, 2007	University of California, Los Angeles, 2016
Stanford University, 2008	The Ohio State University, 2016

Teaching interests

Statistical Methods: introductory and advanced econometrics, research design, Bayesian statistics

American Politics: Congress, contemporary legislative theory, comparative legislative institutions, institutional design, elections, election irregularities

Political Economy: game theory

Dartmouth College activities

Chair, Committee on Priorities, July, 2015–present.

Committee on Priorities, July, 2013–June, 2015.

American politics search committee, Department of Government, August, 2014–December, 2014.

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Research Computing Director search committee, October, 2013 – October, 2014.

Senior Search Committee, Department of Government, 2013.

Research Computing Advisory Committee, Spring 2013.

Chair, American Politics Search Committee, Department of Government, 2012-2013.

Recruitment Planning Committee, Department of Government, 2010 and 2012-2013.

Committee on Standards, 2008-2010.

Task Force on Collaboration and Social Software, 2007-2008.

Biostatistics search committee, Dartmouth Medical School, 2006-2007.

Research Computing Oversight Committee, 2006.

Council on Computing, 2005-2007.

Clement Chair search committee, Department of Government, 2005-2006.

Professional activities

Associate Editor, *Research & Politics*. November, 2016–present.

Editorial Board, *American Politics Research*. September, 2015–present.

Editorial Board, *USENIX Journal of Election Technology and Systems*. March, 2013–present.

Editorial Board, *Political Analysis*. January, 2010–present.

Editorial Board, *American Political Science Review*. 2010–2012.

Editorial Board, *American Journal of Political Science*. 2006–2009.

“Race, Voting Procedures, and New Developments in Voting Rights,” panel organized for the 2013 Annual Meeting of the Midwest Political Science Association.

Division Chair, Formal Theory Section, 2007 Annual Meeting of the American Political Science Association.

Co-editor, *The Political Methodologist*. Fall, 2004–Spring, 2006.

Publications Committee of the Society for Political Methodology. 2005–2006.

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Reviewer for

<i>American Journal of Political Science</i>	<i>Perspectives on Politics</i>
<i>American Political Science Review</i>	<i>Political Analysis</i>
<i>American Politics Quarterly</i>	<i>Political Behavior</i>
<i>American Politics Review</i>	<i>Political Research Quarterly</i>
<i>British Journal of Political Science</i>	<i>Political Science Research and Methods</i>
Cambridge University Press	<i>Political Studies</i>
Chapman & Hall	<i>Politics & Gender</i>
<i>Congress & the Presidency</i>	<i>Politics, Groups, and Identities</i>
<i>Du Bois Review</i>	<i>Policy Studies Journal</i>
<i>Economics & Politics</i>	Prentice Hall Higher Education Group
<i>Election Law Journal</i>	<i>Proceedings of the National Academy of Sciences</i>
<i>Electoral Studies</i>	<i>Public Administration</i>
<i>Emerging Markets Finance & Trade</i>	<i>Public Choice</i>
<i>Interest Groups & Advocacy</i>	<i>Public Opinion Quarterly</i>
John Wiley & Sons, Inc.	<i>PS: Political Science and Politics</i>
<i>Journal of Legal Studies</i>	<i>Quarterly Journal of Political Science</i>
<i>Journal of Money, Credit and Banking</i>	<i>The Social Science Journal</i>
<i>Journal of Politics</i>	<i>Sociological Methods & Research</i>
<i>Journal of Public Economics</i>	Springer
<i>Journal of Race, Ethnicity, and Politics</i>	<i>State Politics & Policy Quarterly</i>
<i>Journal of Theoretical Politics</i>	Time-Sharing Experiments for the Social Sciences
<i>Journal of Women, Politics & Policy</i>	The University of Michigan Press
<i>Legislative Studies Quarterly</i>	<i>World Politics</i>
The National Science Foundation	

Other employment

Intelligence Analyst and Military Officer, United States Air Force, Foreign Technology Division, Wright-Patterson Air Force Base, 1989–1992.

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